

Listing of the Claims

This listing of claims will replace all prior versions and listings of claims in the application:

1. (Previously Presented) A method of generating and inserting an indicator into a video stream comprising:
 - generating a time code signal that is synchronized with the video stream and provides a numerical indication of the location of the video stream that corresponds to a video signal address of said video stream;
 - applying the time code signal to an address generator that decodes the time code signal and generates the corresponding video signal address;
 - applying the corresponding video signal address to a database;
 - generating said indicators at an end-user site and storing said indicators in said database;
 - accessing said indicators that are stored in said database in response to said time code signal at said video signal address;
 - encoding said video stream with said indicators;
 - applying user profile and preference data to a recognition device;
 - comparing the user profile and preference data with the video stream encoded with said indicators; and
 - displaying said encoded video stream at a display device.
2. (Original) The method of claim 1 wherein said step of encoding said video stream with indicators comprises encoding said video stream with content indication tags.
3. (Original) The method of claim 1 wherein said step of encoding said video stream with indicators comprises encoding said video stream with segment division markers.

4. (Original) The method of claim 1 wherein said step of generating said indicators is performed by video recognition of content of said video stream.

5. (Previously Presented) A system for encoding a video stream with indicators comprising;

a time code generator that generates a time code signal that is synchronized with the video stream and provides a numerical indication of the location of the video stream that corresponds to a video signal address of said video stream;

an address generator that receives the time code signal, decodes the time code signal, and generates the corresponding video signal address;

an indicator generator that generates said indicators of said video stream;

a database having said indicators stored therein that receives the corresponding video signal address and generates an indicator signal in response to said corresponding video signal address;

an encoder that encodes said video stream with said indicator signal to generate a video stream encoded with said indicators;

a recognition device that receives user profile and preference data and said video stream encoded with said indicators and compares the user profile and preference data with the video stream encoded with said indicators; and

a display device that displays said video stream encoded with said indicators based on the results of the comparison performed by the recognition device.

6. (Original) The method of claim 5 wherein said indicators are content indication tags.

7. (Original) The method of claim 5 wherein said indicators are segment division markers.

8. (Previously Presented) A method of generating and inserting an indicator into a time encoded video stream comprising:

- extracting a time code from said time encoded video stream that corresponds to a video signal address of said time encoded video signal;
- applying said extracted time code to an address generator;
- generating an address signal in response to the extracted time code;
- generating said indicators at an end-user site and storing them at a selected address location in said database;
- applying said address signal to said database to access said indicators that are stored in said database at said selected address location in response to said address signal;
- encoding said time encoded video stream with said indicators;
- applying user profile and preference data to a recognition device;
- comparing the user profile and preference data with the video stream encoded with said indicators; and
- displaying said encoded video stream at a display device.

9. (Original) The method of claim 8 wherein said step of encoding said time encoded video stream with indicators comprises encoding said time encoded video stream with content identification tags.

10. (Original) The method of claim 8 wherein said step of encoding said time encoded video stream with indicators comprises encoding said time encoded video with segment division markers.

11. (Original) The method of claim 8 wherein said step of generating said indicators is performed by video recognition of the content of said video stream.

12. (Previously Presented) A method of generating and inserting indicators into a time encoded video stream comprising:

- applying said time encoded video stream to a time code reader;
- extracting said time code from said time encoded video stream that corresponds to a video signal address of said time encoded video stream;
- sending said extracted time code to a comparator and generating a video signal;
- generating said indicators at an end-user site and storing said indicators at a selected address location in a database;
- applying said time code signal to said database to access said indicators that are stored in said database at said selected address location in response to said time code signal; and
- encoding said time encoded video signal with said indicators.

13. (Original) The method of claim 12 wherein said step of encoding said video signal with indicators comprises encoding said video signal with content identification tags.

14. (Original) The method of claim 12 wherein said step of encoding said video signal with indicators comprises encoding said video with segment division markers.

15. (Original) The method of claim 12 wherein said step of generating said indicators is performed by video recognition of the content of said video stream.

16. (Previously Presented) A system for inserting indicators in a time encoded video stream comprising:

- a time code reader that reads a time code from said time encoded video stream and extracts said time code from said time encoded video stream that corresponds to a video signal address of said time encoded video stream;
- a comparator that receives said time code from said time code reader;

an indicator generator that generates said indicators of said video stream;
a database having said generated indicators stored therein that generates an indicator signal in response to said time code signal applied to said database by said comparator; and
an encoder that receives said indicator signal from said database and said time encoded video stream from said time code reader and encodes said time encoded video stream with said indicator signal to generate a time and indicator encoded video stream.

17. (Previously Presented) A method of manually inserting indicators in a video stream comprising:

displaying said video stream to an operator;
delaying said video stream to generate a delayed video stream;
displaying said delayed video stream to said operator;
applying said delayed video stream to an encoder;
accessing tags and markers from a database;
generating indicators using said tags and markers from said database to describe the content of the video stream; and
applying said generated indicators to said encoder and inserting said generated indicators at desired locations in said delayed video stream based upon information viewed in said video stream.

18. (Original) The method of claim 17 wherein said step of inserting indicators further comprises:

inserting standard indicators stored in a database using an operator input station.

19. (Original) The method of claim 17 wherein said step of inserting indicators comprises inserting content identification tags.

20. (Original) The method of claim 17 wherein said step of inserting indicators comprises inserting segment division markers.

21. (Previously Presented) A system for manually inserting indicators in a video stream comprising:

a first display that displays said video stream to an operator;

a delay device that operates on said video stream and generates a delayed video signal;

a second display that displays said delayed video signal to said operator;

a database storing tags and markers;

an operator input station under the control of said operator that generates said indicators describing the content of the video stream using said tags and markers from said database; and

an encoder that receives said delayed video signal and said generated indicators and inserts said indicators in said delayed video signal based upon information viewed in said video stream.

22. (Previously Presented) The system of claim 21 further comprising:
a database coupled to said user input station that provides standard content identification tags and segment division markers for insertion into said video stream.

23. (Previously Presented) A method of automatically inserting indicators in a video stream comprising:

splitting said video stream into portions;

delaying one portion of said split video stream to generate a delayed video stream;

analyzing the other portion of said split video stream with a video recognition device to establish content of said split video stream;

generating a content identification signal for said analyzed video stream;

generating segment division markers for said analyzed video stream;

accessing a database to retrieve tags and markers;
comparing the said content identification signal to said retrieved tags and markers from said database;
assigning said retrieved tags and markers to matching content identification signals;
applying said delayed video stream and said matched assigned tags and markers to an encoder;
resynchronizing said matched assigned tags and markers with said delayed video stream; and
encoding said delayed video stream with said matched assigned tags and markers.

24. (Previously Presented) A system for automatically inserting indicators in a video stream comprising:
a splitter for splitting said video stream into portions;
a delay device that operates on said split video stream and generates a delayed video signal for one portion of said split video;
a video recognition analyzer that analyzes the other portion of said split video stream to establish content of said split video stream and generate a content identification signal and segment division markers for said analyzed video stream;
a database of standard content identification tags;
a comparator for retrieving said standard content identification tags from said database and for comparing said content identification signal to said database standard content identification tags to match said content identification signal to said standard content identification tags;
a time synchronizer to receive said delayed video stream and said content identification signal matched with said standard content identification tags and resynchronize said content identification signal matched with said standard content identification tags and markers with said delayed video stream;

an encoder to encode said delayed video stream with said content identification signal matched with said standard content identification tags and markers.

25-32. (Canceled)

33. (Previously Presented) A method of generating an enhanced video signal in response to an indicator encoded in a video stream comprising:

extracting said indicator from said video stream to produce an extracted video signal and an extracted indicator;

decoding said extracted indicator to generate an access signal;

using said access signal to access an Internet web site and produce a web site signal;

decoding said web site signal to generate a supplemental video signal;

combining said supplemental video signal and said extracted video signal to generate said enhanced video signal.

34. (Original) The method of claim 33 wherein said step of combining further comprises combining said supplemental video signal as an overlay of said video signal.

35. (Original) The method of claim 33 wherein said step of combining further comprises generating an enhanced video signal in which said supplemental video signal appears on different portions of a display than said video signal.

36. (Previously Presented) The method of claim 33 wherein said step of using said access signal further comprises:

decoding said access signal to generate a database address signal;

using said database address signal to access an Internet address stored in a database;

accessing an Internet web site using said Internet address.

37. (Previously Presented) A system for generating an enhanced video signal in response to indicators provided in a video stream comprising:

a decoder that is connected to receive said video stream and that separates said indicators from said video stream and produces a video signal, an indicator signal, and an HTML signal;

an indicator decoder that receives said indicator signal and decodes said indicator signal to generate a look-up table address;

a look-up table address storage device that receives said look-up table address from said decoded indicator signal and generates an Internet address signal;

an Internet connection that accesses an Internet address in response to said Internet address signal and provides an Internet information web page

an Internet information web page decoder that decodes Internet information accessed at said Internet address and that generates a supplemental video signal;

a combiner that combines said supplemental video signal and said video signal to generate said enhanced video signal.

38. (Original) The system of claim 37 further comprising:

an Internet information encoder that encodes said Internet information with said video stream.

39. (Original) The system of claim 37 wherein said Internet connection is provided through a cable head-end.

40. (Original) The system of claim 37 wherein said Internet connection is provided as a direct connection from a set-top box to an Internet service provider.